

AMENDMENTS TO THE CLAIMS

1. (withdrawn) A method for the preparation of a branched siloxane comprising the steps of:

a) mixing a compound having the general formula $(\text{SiO}_{4/2})(\text{R}^a\text{R}^b_2\text{SiO}_{1/2})_4$ with a cyclic polydiorganosiloxane; and/or a substantially linear hydroxy terminated polydiorganosiloxane wherein each R^a substituent is selected from the group consisting of an alkyl group having from 1 to 6 carbon atoms an alkenyl group having from 1 to 6 carbon atoms and an alkynyl group having from 1 to 6 carbon atoms, the R^a substituent in at least part of the compound being selected from alkenyl and alkynyl, and each R^b substituent is selected from the group consisting of an alkyl group having from 1 to 6 carbon atoms, an aryl group, an alkoxy group, an acrylate group and a methacrylate group;

b) causing the mixture to react in the presence of an acid or phosphazene base catalyst at a temperature of up to 180°C ; and

c) neutralising the reaction mixture.

2. (cancelled)

3. (cancelled)

4. (cancelled)

5.(withdrawn) A silicone based release modifier composition comprising

A) a branched siloxane consisting of:-

(a) at least one Q unit of the formula $(\text{SiO}_{4/2})$ and

(b) from 15 to 995 D units of the formula $\text{R}^b_2\text{SiO}_{2/2}$

which units (a) and (b) may be inter-linked in any appropriate combination, and

(c) M units of the formula $\text{R}^a\text{R}^b_2\text{SiO}_{1/2}$,

wherein each R^a substituent is selected from the group consisting of an alkyl group having from 1 to 6 carbon atoms, an alkenyl group having from 1 to 6 carbon atoms and an alkynyl group

having from 1 to 6 carbon atoms, at least three R^a substituents in the branched siloxane being alkenyl or alkynyl units, and each R^b substituent is selected from the group consisting of an alkyl group having from 1 to 6 carbon atoms, an alkenyl group having 2 to 6 carbon atoms, an aryl group, an alkoxy group, an acrylate group and a methacrylate group; and

B) at least one additional component selected from:-

- i) an alkenylated silicone resin
- ii) an alkenylated polydiorganosiloxane,
- iii) one or more primary alkenes containing from 14 to 30 carbon atoms, and
- iv) one or more branched alkenes containing at least 14 carbon atoms.

6. (cancelled)

7. (cancelled)

8. (withdrawn) A silicone based release modifier composition comprising A) a branched siloxane containing at least three aliphatically unsaturated hydrocarbon groups, terminated by units of the formula $R^a R^b_2 SiO_{1/2}$ and otherwise consisting of:-

(a) at least one unit of the formula $(SiO_{4/2})$; and

(b) at least two polydiorganosiloxane chains of the formula $(R^b_2 SiO_{2/2})_n$, where each n is independently from 2 to 100, the total $R^b_2 SiO_{2/2}$ units in the branched siloxane being from 15 to 995 units, wherein each R^a substituent is selected from the group consisting of an alkyl group having from 1 to 6 carbon atoms, an alkenyl group having from 1 to 6 carbon atoms and an alkynyl group having from 1 to 6 carbon atoms and each R^b substituent is selected from the group consisting of an alkyl group having from 1 to 6 carbon atoms, an aryl group, an alkoxy group, an acrylate group and a methacrylate group; and

B) at least one additional component selected from:-

- i) an alkenylated silicone resin
- ii) an alkenylated polydiorganosiloxane, and
- iii) one or more primary alkenes containing from 14 to 30 carbon atoms, and
- iv) one or more branched alkenes containing at least 14 carbon atoms.

9. (cancelled)

10. (cancelled)

11. (cancelled)

12. (cancelled)

13. (cancelled)

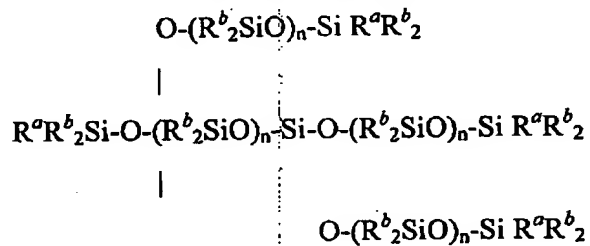
14. (cancelled)

15. (cancelled)

16. (withdrawn) A silicone based release modifier composition according to Claim 5 wherein each R^b substituent is an alkyl group selected from methyl and ethyl.

17. (withdrawn) A silicone based release modifier composition according to claim 5 where the branched siloxane contains at least two polydiorganosiloxane chains of the formula $(R^b_2SiO_{2/2})_n$ where each n is independently from 2 to 100.

18. (withdrawn) A silicone based release modifier composition according to claim 17 where the branched siloxane has the general formula



where each n is independently from 1 to 100.

19. (cancelled)

20. (withdrawn) A release coating composition according to Claim 8 where the branched siloxane has from 20 to 250 siloxane units.

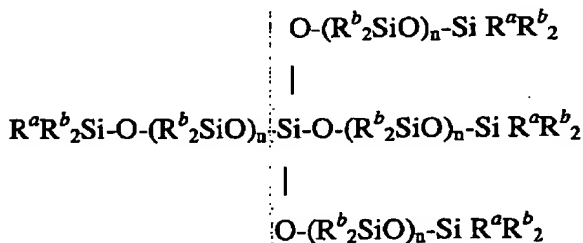
21. (cancelled)

22. (Previously added) A multi-pack release coating composition comprising a first pack comprising a branched siloxane consisting of (a) at least one Q unit of the formula $(\text{SiO}_{4/2})$ and (b) from 15 to 995 D units of the formula $\text{R}^b_2\text{SiO}_{2/2}$ which units (a) and (b) may be inter-linked in any appropriate combination, and (c) M units of the formula $\text{R}^a\text{R}^b_2\text{SiO}_{1/2}$, wherein each R^a substituent is selected from the group consisting of an alkyl group having from 1 to 6 carbon atoms, an alkenyl group having from 1 to 6 carbon atoms and an alkynyl group having from 1 to 6 carbon atoms, at least three R^a substituents in the branched siloxane being alkenyl or alkynyl units, and each R^b substituent is selected from the group consisting of an alkyl group having from 1 to 6 carbon atoms, an alkenyl group having 2 to 6 carbon atoms, an aryl group, an alkoxy group, an acrylate group and a methacrylate group; and a hydrosilylation inhibitor, a second pack comprising a silicone release modifier and hydrosilylation inhibitor, a third pack comprising a hydrosilylation catalyst in a sufficient amount to catalyse the reaction between the branched siloxane and a cross-linking agent and a fourth pack comprising the organohydrogenpolysiloxane cross-linking agent in an amount such that the ratio of the total number of Si-H groups in the composition to aliphatically unsaturated hydrocarbon groups in the composition is from 0.9:1 to 3:1.

23. (Currently Amended) A multi-pack release coating composition ~~according to claim 22~~ comprising a first pack comprising a branched siloxane consisting of (a) at least one Q unit of the formula $(\text{SiO}_{4/2})$ and (b) from 15 to 995 D units of the formula $\text{R}^b_2\text{SiO}_{2/2}$ which units (a) and (b) may be inter-linked in any appropriate combination, and (c) M units of the formula $\text{R}^a\text{R}^b_2\text{SiO}_{1/2}$, wherein each R^a substituent is selected from the group consisting of an alkyl group having from 1 to 6 carbon atoms, an alkenyl group having from 1 to 6 carbon atoms and an alkynyl group having from 1 to 6 carbon atoms, at least three R^a substituents in the branched siloxane being alkenyl or alkynyl units, and each R^b substituent is selected from the group consisting of an alkyl group having from 1 to 6 carbon atoms, an alkenyl group having 2 to 6 carbon atoms, an aryl group, an alkoxy group, an acrylate group and a methacrylate group; ~~the branched siloxane and catalyst, a second pack comprising the silicone release modifier and the catalyst, and a third pack comprising the organohydrogenpolysiloxane cross-linking agent cross-linking agent and hydrosilylation inhibitor.~~

24. (cancelled)

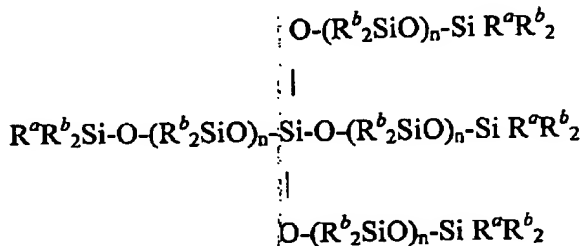
25. (New) A multi-pack release coating composition of claim 22 where the branched siloxane has the general formula



where each n is independently from 1 to 100.

26. (New) A multi-pack release coating composition according to claim 23 where at least 50 percent of the R^a substituents are alkenyl groups.

27. (New) A multi-pack release coating composition of claim 23 where the branched siloxane has the general formula

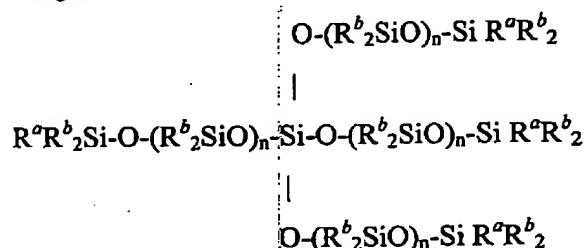


where each n is independently from 1 to 100.

28. (New) A multi-pack release coating composition comprising a first pack comprising a branched siloxane consisting of (a) at least one Q unit of the formula $(\text{SiO}_{4/2})$ and (b) from 15 to 995 D units of the formula $\text{R}^b_2\text{SiO}_{2/2}$ which units (a) and (b) may be inter-linked in any appropriate combination, and (c) M units of the formula $\text{R}^a\text{R}^b_2\text{SiO}_{1/2}$, wherein each R^a substituent is selected from the group consisting of an alkyl group having from 1 to 6 carbon atoms, an alkenyl group having from 1 to 6 carbon atoms and an alkynyl group having from 1 to 6 carbon atoms, at least three R^a substituents in the branched siloxane being alkenyl or alkynyl units, and each R^b substituent is selected from the group consisting of an alkyl group having from 1 to 6 carbon atoms, an alkenyl group having 2 to 6 carbon atoms, an aryl group, an alkoxy group, an acrylate group and a methacrylate group; and a hydrosilylation inhibitor, a second pack comprising a silicone release modifier and hydrosilylation inhibitor, a third pack comprising a hydrosilylation catalyst, and a fourth pack comprising an organohydrogenpolysiloxane cross-linking agent.

29. (New) A multi-pack release coating composition according to claim 28 where at least 50 percent of the R^a substituents are alkenyl groups.

30. (New) A multi-pack release coating composition of claim 28 where the branched siloxane has the general formula

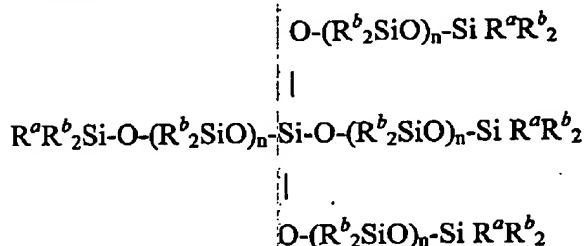


where each n is independently from 1 to 100.

31. (New) A multi-pack release coating composition comprising a first pack comprising a branched siloxane consisting of (a) at least one Q unit of the formula $(\text{SiO}_{4/2})$ and (b) from 15 to 995 D units of the formula $\text{R}^b_2\text{SiO}_{2/2}$ which units (a) and (b) may be inter-linked in any appropriate combination, and (c) M units of the formula $\text{R}^a\text{R}^b_2\text{SiO}_{1/2}$, wherein each R^a substituent is selected from the group consisting of an alkyl group having from 1 to 6 carbon atoms, an alkenyl group having from 1 to 6 carbon atoms and an alkynyl group having from 1 to 6 carbon atoms, at least three R^a substituents in the branched siloxane being alkenyl or alkynyl units, and each R^b substituent is selected from the group consisting of an alkyl group having from 1 to 6 carbon atoms, an alkenyl group having 2 to 6 carbon atoms, an aryl group, an alkoxy group, an acrylate group and a methacrylate group; a hydrosilylation inhibitor; and a catalyst, a second pack comprising an organohydrogenpolysiloxane cross-linking agent, and a third pack comprising a silicone release modifier; a catalyst; and a hydrosilylation inhibitor.

32. (New) A multi-pack release coating composition according to claim 31 where at least 50 percent of the R^a substituents are alkenyl groups.

33. (New) A multi-pack release coating composition of claim 31 where the branched siloxane has the general formula

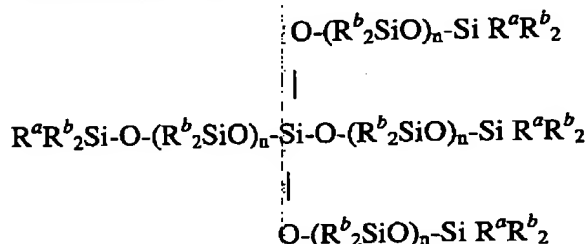


where each n is independently from 1 to 100.

34. (New) A multi-pack release coating composition comprising a first pack comprising a branched siloxane consisting of (a) at least one Q unit of the formula $(\text{SiO}_{4/2})$ and (b) from 15 to 995 D units of the formula $\text{R}^b_2\text{SiO}_{2/2}$ which units (a) and (b) may be inter-linked in any appropriate combination, and (c) M units of the formula $\text{R}^a\text{R}^b_2\text{SiO}_{1/2}$, wherein each R^a substituent is selected from the group consisting of an alkyl group having from 1 to 6 carbon atoms, an alkenyl group having from 1 to 6 carbon atoms and an alkynyl group having from 1 to 6 carbon atoms, at least three R^a substituents in the branched siloxane being alkenyl or alkynyl units, and each R^b substituent is selected from the group consisting of an alkyl group having from 1 to 6 carbon atoms, an alkenyl group having 2 to 6 carbon atoms, an aryl group, an alkoxy group, an acrylate group and a methacrylate group; a hydrosilylation inhibitor; and an organohydrogenpolysiloxane cross-linking agent, a second pack comprising a catalyst, and a third pack comprising a silicone release modifier; an organohydrogenpolysiloxane cross-linking agent; and a hydrosilylation inhibitor.

35. (New) A multi-pack release coating composition according to claim 34 where at least 50 percent of the R^a substituents are alkenyl groups.

36. (New) A multi-pack release coating composition of claim 34 where the branched siloxane has the general formula

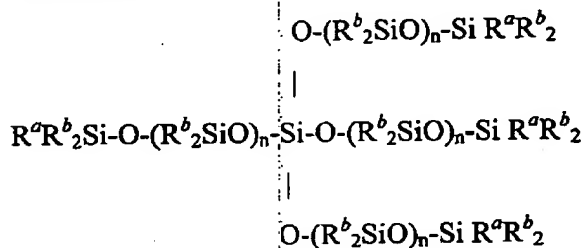


where each n is independently from 1 to 100.

37. (New) A multi-pack release coating composition comprising a first pack comprising a branched siloxane consisting of (a) at least one Q unit of the formula $(\text{SiO}_{4/2})$ and (b) from 15 to 995 D units of the formula $\text{R}^b_2\text{SiO}_{2/2}$ which units (a) and (b) may be inter-linked in any appropriate combination, and (c) M units of the formula $\text{R}^a\text{R}^b_2\text{SiO}_{1/2}$, wherein each R^a substituent is selected from the group consisting of an alkyl group having from 1 to 6 carbon atoms, an alkenyl group having from 1 to 6 carbon atoms and an alkynyl group having from 1 to 6 carbon atoms, at least three R^a substituents in the branched siloxane being alkenyl or alkynyl units, and each R^b substituent is selected from the group consisting of an alkyl group having from 1 to 6 carbon atoms, an alkenyl group having 2 to 6 carbon atoms, an aryl group, an alkoxy group, an acrylate group and a methacrylate group; a second pack comprising an organohydrogenpolysiloxane cross-linking agent, a third pack comprising a catalyst, a fourth pack comprising a silicone release modifier, and a fifth pack comprising a hydrosilylation inhibitor.

38. (New) A multi-pack release coating composition according to claim 37 where at least 50 percent of the R^a substituents are alkenyl groups.

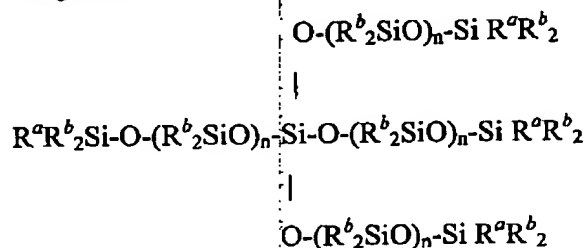
39. (New) A multi-pack release coating composition of claim 37 where the branched siloxane has the general formula



where each n is independently from 1 to 100.

40. (New) A multi-pack release coating composition comprising a first pack comprising a branched siloxane consisting of (a) at least one Q unit of the formula $(\text{SiO}_{4/2})$ and (b) from 15 to 995 D units of the formula $\text{R}^b_2\text{SiO}_{2/2}$ which units (a) and (b) may be inter-linked in any appropriate combination, and (c) M units of the formula $\text{R}^a\text{R}^b_2\text{SiO}_{1/2}$, wherein each R^a substituent is selected from the group consisting of an alkyl group having from 1 to 6 carbon atoms, an alkenyl group having from 1 to 6 carbon atoms and an alkynyl group having from 1 to 6 carbon atoms, at least three R^a substituents in the branched siloxane being alkenyl or alkynyl units, and each R^b substituent is selected from the group consisting of an alkyl group having from 1 to 6 carbon atoms, an alkenyl group having 2 to 6 carbon atoms, an aryl group, an alkoxy group, an acrylate group and a methacrylate group; a catalyst; a hydrosilylation inhibitor; and an organohydrogenpolysiloxane cross-linking agent, and a second pack comprising a catalyst; a silicone release modifier; an organohydrogenpolysiloxane cross-linking agent; and a hydrosilylation inhibitor.

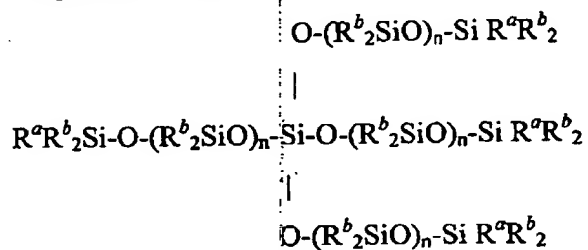
41. (New) A multi-pack release coating composition of claim 40 where the branched siloxane has the general formula



where each n is independently from 1 to 100.

42. (New) A multi-pack release coating composition comprising a first pack comprising a branched siloxane consisting of (a) at least one Q unit of the formula $(\text{SiO}_{4/2})$ and (b) from 15 to 995 D units of the formula $\text{R}^b_2\text{SiO}_{2/2}$ which units (a) and (b) may be inter-linked in any appropriate combination, and (c) M units of the formula $\text{R}^a\text{R}^b_2\text{SiO}_{1/2}$, wherein each R^a substituent is selected from the group consisting of an alkyl group having from 1 to 6 carbon atoms, an alkenyl group having from 1 to 6 carbon atoms and an alkynyl group having from 1 to 6 carbon atoms, at least three R^a substituents in the branched siloxane being alkenyl or alkynyl units, and each R^b substituent is selected from the group consisting of an alkyl group having from 1 to 6 carbon atoms, an alkenyl group having 2 to 6 carbon atoms, an aryl group, an alkoxy group, an acrylate group and a methacrylate group; and a catalyst, a second pack comprising an organohydrogenpolysiloxane cross-linking agent, a third pack comprising a silicone release modifier, and a catalyst, and a fourth pack comprising hydrosilylation inhibitor.

43. (New) A multi-pack release coating composition of claim 42 where the branched siloxane has the general formula



where each n is independently from 1 to 100.